May 2009

Supplemental FACT SHEET
Authorization to Discharge under the
National Pollutant Discharge Elimination System
for the
Bureau of Indian Affairs -- Torreon Navajo Day School Wastewater Treatment Lagoon
NPDES Permit No. NN0030341

EPA has made the following changes to the proposed permit for Torreon day school. EPA has established effluent limitations for biochemical oxygen demand and total suspended solids that are less stringent than the proposed limits in order to be consistent with equivalent to secondary treatment regulations at 40 CFR Sections 133.105(a) and 133.105(d). EPA made this decision because EPA believes there is insufficient information to determine if the facility is able to meet effluent limitations more stringent than required by national equivalent to secondary treatment standards. The Torreon day school sewage treatment lagoon operates as a zero discharge facility. As mentioned in the permit application for Torreon Day school, the facility consistently operates as a zero discharge facility, and therefore, there is a lack of actual discharge data of effluent to receiving waters. This facility maintains an NPDES permit in cases when it may be necessary to discharge. Therefore, the permit is establishing effluent limitations consistent with federal requirements applicable for waste stabilization ponds.

Five-Day Biochemical Oxygen Demand (BOD_5)

As required in the permit, the discharge shall not exceed a weekly average of 65 mg/l and a monthly average of 45 mg/l BOD_5, and shall achieve no less than a monthly average rate of 65% removal. These limits are required under 40 CFR Sections 133.105(a) and 133.105(d). The limits are designated as 30-day and 7 day averages since the facility operates similar to a POTW, and it would be impracticable to do otherwise [40 CFR 122.45 (d)].

Under 40 CFR Section 122.45(f), mass limits are required for BOD_5. Based upon the 0.010 MGD flow, the mass limits for BOD_5 are based on the following calculations:

Monthly average

$$\frac{0.010\ MG}{day} \times \frac{45\ mg}{l} \times \frac{8.345\ lb/MG}{1\ mg/l} \times \frac{0.45\ kg}{lb} = 1.69\ kg\ per\ day$$

Weekly average

$$\frac{0.010\ MG}{day} \times \frac{65\ mg}{l} \times \frac{8.345\ lb/MG}{1\ mg/l} \times \frac{0.45\ kg}{lb} = 2.44\ kg\ per\ day$$

The daily maximum will also be monitored and reported. The monitoring frequency is once per discharge. Should the event of a continuous discharge occur over several days or more than one discrete or separate discharge in a month, the monitoring frequency should be no more than once per month. If no discharge occurs, no monitoring is required.

Total Suspended Solids (TSS)

As required in the permit, the discharge shall not exceed a weekly average of 135 mg/l and monthly average of 90 mg/l TSS, and shall achieve no less than a monthly average rate of 65% removal. These limitations (Alternate State Requirements) are consistent with 40 CFR Parts 133.101(f) and 133.105(b). Mass limit requirements in accordance with 40 CFR 122.45(f) have also been set in the proposed permit

Monthly average

$$\frac{0.010\ \text{MG}}{\text{day}} \times \frac{90\ \text{mg}}{\text{l}} \times \frac{8.345\ \text{lb/MG}}{1\ \text{mg/l}} \times \frac{0.45\ \text{kg}}{\text{lb}} = 3.38\ \text{kg per day}$$

Weekly average

$$\frac{0.010\ \text{MG}}{\text{day}} \times \frac{135\ \text{mg}}{\text{l}} \times \frac{8.345\ \text{lb/MG}}{1\ \text{mg/l}} \times \frac{0.45\ \text{kg}}{\text{lb}} = 5.07\ \text{kg per day}$$

The monitoring frequency is once per discharge, with an added clarification of no more than once per month as discussed in the monitoring frequency for BOD_5 above.